REMARKS

Claims 1-15 are currently pending. Claims 11 and 12 have been changed as to their dependencies, and language adjusted in light of said change in dependency. Claim 1 has been amended to include recitation of a step of regrowing the second semiconductor layer on the mask layer having the nanoholes. Support for this change can be found, *inter alia*, at page 5, lines 1-8.

The Office Action includes a rejection of claims 1-6, 9 and 11-16 under 35 U.S.C. §102(a) as allegedly being anticipated by the Zhang et al patent application publication (Publication No. US 2003/0010971) and a rejection of claims 7-8 and 10 under 35 U.S.C. §103 as allegedly being unpatentable over the Zhang et al patent application publication in combination with the Tsakalakos et al patent application publication (US 2004/0077156). These rejections are respectfully traversed.

In reviewing the Zhang et al patent application publication, it has been noted with reference to Figures 5A-5C, that an aluminum metal layer 84 was subjected to repeated anodization processes to convert the aluminum metal layer 84 into an anodized aluminum layer 86 having an array of nanopores 88 therein. The silicon dioxide layer 96 is then said to be selectively etched using the anodized aluminum layer 86 as an etching mask to transfer the nanopores 88 to the underlying silicon dioxide layer 96. Thereafter, quantum dots are said to be selectively grown inside the transferred array of nanopores. Once the quantum dots are placed in the nanopores, an AlGaAs layer 92 is deposited on a silicon dioxide layer.

What the Zhang et al patent application publication does not teach, suggest or otherwise contemplate is that if the second semiconductor layer (38 in Figure 3E of

the present application) is regrown using the mask layer having the nanopattern as a mask, propagation of defects can be prevented using selective growth. Also, if the second semiconductor layer 38 is subsequently regrown on the nanopattern, abnormal defect distribution can be minimized at an interface between the second semiconductor layer and the nanopattern, thus maintaining stable structure of the semiconductor device.

The regrowth aspect of the present invention has been added to claim 1. New claim 17 expressly describes an embodiment wherein the defect density can be reduced and made more uniform compared to prior art. The Zhang et al patent neither teaches nor suggests this aspect of the invention.

Further, the Tsakalakos et al patent publication teaches a method of fabricating a semiconductor structure by using nanolithography to create an array of nanoscale features in a semiconductor masking layer and drawing a semiconductor film within the nanoscale features on the exposed areas of a substrate. In an alternative embodiment, the mask layer can be inorganic such as silicon nitride or silicon oxide. Also, the secondary reference is only being relied upon for allegedly teaching growth of GaN based semiconductor materials. It is respectfully submitted is that this nanolithography technique would be contrary to the non-photolithographic technique of the Zhang et al patent application publication.

Finally, though applicants have not yet provided the evidence, it is noted that the present application claims priority to Korean Application 2003-4106 filed 21 January 2003. The secondary reference was filed October 18, 2002. Further, the Zhang et al patent application publication was filed June 24, 2002, although it also

claims priority to provisional patent applications that have not been reviewed, potentially moving the effective date of this document back to June of 2001. It is possible applicants could swear behind one or both of these references and reserve the right to do so should it become necessary.

In light of the foregoing, applicants respectfully request reconsideration and allowance of the above-captioned application. Should any residual issues present themselves, the Examiner is invited to contact the undersigned at the number listed below.

Respectfully submitted,

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